JS 9/30/21 RJA 1/04/22

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Reviewer: Wong/Sarraino/EN Results Table: Dose, Concentration, and Days Exceeded Results Summary

| Exposure Scenario ¹ | | | W | Vater | | | Landfill | Stack | k Air | Fugiti | ve Air |
|--|-----------|-----------|-----------|-----------|-------------------|-------------|-----------|----------------------|----------------------|------------------------|------------------------|
| 2 | Drinkin | g Water | Fish In | gestion | 7Q10 ⁴ | PDM Days | LADD | ADR (24-hr | LADD (Annual | ADR (24-hr | LADD (Annual |
| Release activity(ies) ² ; exposure calculation(s) ³ | ADR | LADD | ADR | LADD | CC =1 | Exceeded | | conc.) | conc.) | conc.) | conc.) |
| | mg/kg/day | mg/kg/day | mg/kg/day | mg/kg/day | μg/l | # Days | mg/kg/day | mg/kg/day (µg/m³) | mg/kg/day (μg/m³) | mg/kg/day (μg/m³) | mg/kg/day (μg/m³) |
| PROC: max acute eco | | | 1 | | 1.68E+04 | | | 1 | 1 | | |
| PROC: Max LADD | | | | | | | | | | | 2.26E-04 (2 92E+00) |
| PROC1: max acute eco | | | | | 1 10E+02 | | | | | | |
| PROC1: PDM1 | | | | | 1 10E+02 | 249 | | | | | |
| PROC2: max acute eco | | | | | 1 11E+03 | | | | | | |
| PROC2: PDM1 | | | | | 1 11E+03 | 64 | | | | | |
| PROC2: PDM2 | | | | | 6 19E+02 | 250 | | | | | |
| PROC3/USE3: max acute eco | | | | | 2 34E+03 | | | | | 4.25E+00 (2.32E+04) | |
| PROC3/USE3: PDM1 | | | | | 2 23E+03 | 107 | | | | | |
| PROC3/USE3: PDM2 | | | | | 1 52E+03 | 250 | | | | | |
| PROC3/USE3: Max LADD | | | | | | | | | | | 3.99E-03 (5 15E+01) |
| PROC4: max acute eco | | | | | 4 99E+02 | | | - | | | |
| PROC4: PDM1 | | | | | 9.66E+00 | 197 | | | | | |
| PROC/USE5: max acute eco | | | | | 7 80E+02 | | | | | | |
| PROC/USE5: PDM1 | | | | | 7 80E+02 | 112 | | | | | |
| PROC/USE5: PDM2 | | | | | 7.76E+01 | 219 | | | | | |
| USE1: max acute eco | | | | | 1 31E+02 | | | - | | 1.20E+00 (6.56E+03) | |
| USE1: PDM1 | | | | | 1 31E+02 | 250 | | | | | |
| USE1: Max LADD | | | | | | | | | | | 8.52E-03 (1 10E+02) |
| USE2: max acute eco | | | | | 2 58E+00 | | | | | | |
| USE2: PDM1 | | | | | 2 58E+00 | 102 | | | | | |
| USE4: max acute eco | | | | | 1.43E+02 | | | | | | |
| USE4: PDM1 | | | | | 5 99E+01 | 215 | | | | | |

Remarks: Consumer Exposure can occur through the use of cleaning products containing the PMN. Young children could be exposed through accidental ingestion of cleaning fluid as well as dermal and inhalation exposure from wet surfaces. Dermal and Inhalation exposure from wet surfaces could also affect pregnant women and the elderly.

Results Table: Consumer Exposure Results Summary

| | | V | Vater (DtD) | | | Der | mal | Inhal | ation | |
|---------------------------------------|-------------------------------|---------------|---------------|-------------------------|----------|--------|---------------|---------------|---------------|---------------|
| Scenario | Drinking Water Fish Ingestion | | 7Q10 | PDM Days Exceeded | ADR | LADD | ADR | LADD | | |
| | ADR | LADD | ADR | LADD | | | | | | |
| | mg/kg/ day | mg/kg/ day | mg/kg /day | mg/kg/ day | μg/l | # Days | mg/kg/ day | mg/kg/ day | mg/kg/ day | mg/kg/ day |
| DtD ¹ | | | | | 1.54E+02 | 360 | | | | |
| CEM ² , General Purpose | | | | | | | 2.15E-02 | 1.29E-02 | 3.48E-01 | 1.11E-01 |
| CEM ² , Latex Paint | | | | | | | 3.93E+01 | 6.08E-02 | 1.31E+01 | 8.09E-03 |
| CEM ² , Laundry detergent | | | | | | | 6.83E-03 | 7.11E-04 | 3.00E-01 | 4.74E-02 |

¹Down-the-Drain Module within NCEM2 model.

Results Table: Exposure Based (XB)/Persistent (P2B2) Criteria

| Parameter | Exp Based | Persistent | Exceedance Value |
|---|-----------|------------|------------------|
| Drinking (Surface) Water Dose (mg/kg/day) | No | NA | |
| Fish Ingestion Dose (mg/kg/day) | No | NA | |
| Inhalation Dose (mg/kg/day) | Yes | NA | 8 52E-03 |
| Groundwater Dose (mg/kg/day) | No | NA | |
| Surface Water Release After Treatment (kg/yr) | Yes | NA | 1 11E+06 |
| Total Release After Treatment (kg/yr) | Yes | NA | 3.05E+07 |
| Consumer Use? | Yes | | 1 11E-01 |

Fate test recommendations?: (default is NA)

¹ Exposure scenario titles consist of release activity followed by exposure calculation abbreviation.

² Release activities are from engineering report's Manufacturing (Mfg), Processing (Proc) and Use release activity labels. Multiple release activities are combined in one exposure scenario if their releases occur at same location.

³ Exposure calculations are Acute Dose Rate (ADR), Lifetime Average Daily Dose (LADD), and Probabilistic Dilution Model (PDM). There may be one, two, or all three exposure calculations per exposure scenario. CC is the aquatic concentration of concern.

⁴ This column displays concentration values for the 7Q10 streamflow, which is defined as the average daily streamflow of the seven consecutive days of lowest flow within a ten year period.

²Consumer Exposure Module within NCEM2 model.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

Scenario#:1 Number of Release Sites: 2.

Release Activity: PROC: Max ADR

| Release Description: | WATER | WATER LANDFILL | | FUGITIVE |
|----------------------|---------|-------------------|-----|----------|
| | | Non-sludge/Sludge | | |
| Total Releases: | 2600.00 | N/A | N/A | 0.00 |
| | | | | |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| 1.00 | 0.00/0.00 | N/A | 0.00 |
|--------------------------|---------------------------|---------------|--------------------|
| 1300.00 (kg/site/day) | N/A/0.00 (kg/site/day) | (kg/site/day) | 0.00 (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1

Number of Sites: 2

RELEASE ACTIVITY:PROC:

Max ADR

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952

EXPOSED POPULATION: Adult

| RE | WWT EMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|----|----------------------|-----------------|--|---|------------|---------------|
| | 90.00 | 1. | 1300. | 130.00 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | |
|---------------|--|------------------|-------------------|-------|-------|------------------|---------------------|----------|----------|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM CONC. (μg/l) | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 451.39 | 1049.74 | 1662.83 | 1968.21 |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 3282.83 | 9781.79 | 1.68E+04 | 1.72E+04 |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units |
| | 50% | 10% | | 50% | 10% | |
| Cancer | | | | | | |
| $LADD_{pot}$ | 6.80E-06 | 4.95E-05 | mg/kg/day | 5.94E-06 | 4.32E-05 | mg/kg/day |
| LADC _{pot} | 5.23E-04 | 3.81E-03 | mg/L | 6.33E-02 | 0.46 | mg/kg |
| Acute | | | | | | |
| ADR_{pot} | 3.98E-02 | 0.37 | mg/kg/day | 0.19 | 1.39 | mg/kg/day |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1 RELEASE ACTIVITY: PROC: Max ADR

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: Subset of 4952

| SIC CODE RESULTS | | | | | | |
|------------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|
| COC (μg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis |
| 1.00 | 0 | 1 | 1.00 | 1300.00 | 90.00 | High |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

ENVIRONMENTAL RELEASES

Scenario#:2 Number of Release Sites: 2.

Release Activity: PROC: Max LADD

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|---------|-------------------|---------|----------|
| | | Non-sludge/Sludge | | |
| Total Releases: | 0.00 | N/A | N/A | 195.00 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |
| | | | | |
| | | | | |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| 0.00 | 0.00/0.00 | N/A | 1.00 |
|---------------|---------------|---------------|---------------|
| 0.00 | N/A/0.00 | N/A | 97.50 |
| (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)

SCENARIO #: 2 RELEASE ACTIVITY:PROC: Max LADD

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites: 2.

Per Site Fugitive Release: 97.50 kg/site/day

Fugitive Release Days per Year: 1.00 days

% Removal via Fugitive Release: 0.00 %

Total Fugitive Release: 195.00 kg/yr

Max Annual Average Air Concentration 2.92 μg/m³

(Fugitive):

Max 24 Hour Average Air $N/A \mu g/m^3$

Concentration(Fugitive):

Per Site Stack Release: NA kg/site/day

Stack Release Days per Year: NA days

% Removal via Stack Release: 99.90 %

Total Stack Release: NA kg/yr

Max Annual Average Air Concentration (Stack): 0.00 μg/m³

Max 24 Hour Average Air Concentration (Stack): N/A μg/m³

| | D 1: | D 1: | ASSUMPTIONS | | | | | |
|--|--------------------|-----------------------|---------------|---------------|------------|-------------------|--|--|
| Exposure Units | Results (Stack) | Results (Fugitive) | ED (years) | AT (years) | BW (kg) | Inh. Rate (m³/hr) | | |
| Cancer | | | | | | | | |
| LADD _{pot} (mg/kg/day) | N/A | 2.26E-04 | 33.00 | 78.00 | 80.00 | 0.61 | | |
| LADC _{pot} (mg/m ³) | N/A | 1.24E-03 | 33.00 | 78.00 | NA | NA | | |
| Acute | | | | | | | | |
| ADR _{pot} (mg/kg/day) | N/A | N/A | NA | 1 day | 80.00 | 0.61 | | |

Inhalation Comments:

Stack Parameter Data Fugitive Parameter Data

Stack Height 10.00 Release Height: 3.00 m

Inside Stack 0.10 Length of Release 10.00 m

Diameter: Opening:

Stack Gas Exit 0.10 Width of Release 10.00 m

Velocity: Opening:

Stack Gas 293.00

Temperature:

Meteorological and Terrain Information:

Surrounding Land Use: Rural

Terrain Height: 0.00 m

Distance to Residence of Interest: 100.00 m

Meteorological Class: Full

Stability Class: NA

Wind Speed: NA

Downwash Information:

Facility Length: NA m

Facility Width: NA m

Facility Height: NA m

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

Scenario#:3 Number of Release Sites: 300.

Release Activity: PROC1: Max ADR

| Release Description: | WATER | LANDFILL Non-sludge/Sludge | STACK | FUGITIVE |
|----------------------|--------------------------|----------------------------|---------|----------|
| Total Releases: | Total Releases: 6.38E+05 | | N/A | 0.00 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| 250.00 | 0.00/0.00 | N/A | 0.00 | |
|---------------|---------------|---------------|---------------|--|
| 8.50 | N/A/0.00 | N/A | 0.00 | |
| (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3 Number of Sites: 300 RELEASE ACTIVITY:PROC1:

Max ADR

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 250. | 8.5 | 0.85 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|-------------------|--------|-------|-------|---------------------|-------|--------|--------|--|
| PLANT TYPE | % ILE FACILITY | STREAM FLOW (MLD) | | | | STREAM CONC. (μg/l) | | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 2.95 | 6.86 | 10.87 | 12.87 | |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 21.46 | 63.96 | 109.54 | 112.29 | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | | |
| | 50% | 10% | | 50% | 10% | | | | |
| Cancer | | | | | | | | | |
| $LADD_{pot}$ | 1.11E-05 | 8.09E-05 | mg/kg/day | 9.70E-06 | 7.06E-05 | mg/kg/day | | | |
| LADC _{pot} | 8.55E-04 | 6.22E-03 | mg/L | 0.10 | 0.75 | mg/kg | | | |
| Acute | | | | | | | | | |
| ADR_{pot} | 2.60E-04 | 2.42E-03 | mg/kg/day | 1.25E-03 | 9.06E-03 | mg/kg/day | | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

| ENVIRONMENTAL RELEASES |
|------------------------|
|------------------------|

Scenario#:4 Number of Release Sites: 300.

Release Activity: PROC1: PDM1

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|--------------------------|-------------------|---------|----------|
| | | Non-sludge/Sludge | | |
| Total Releases: | Total Releases: 6.38E+05 | | N/A | 0.00 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| L | 250.00 | 0.00/0.00 | N/A | 0.00 | |
|---|---------------|---------------|---------------|---------------|--|
| | 8.50 | N/A/0.00 | N/A | 0.00 | |
| | (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4

Number of Sites: 300

RELEASE ACTIVITY:PROC1:

PDM1

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952

EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 250. | 8.5 | 0.85 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|-------------------|--------|-------|-------|---------------------|-------|--------|--------|--|
| PLANT TYPE | % ILE FACILITY | STREAM FLOW (MLD) | | | | STREAM CONC. (μg/l) | | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 2.95 | 6.86 | 10.87 | 12.87 | |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 21.46 | 63.96 | 109.54 | 112.29 | |

| DRIN | DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | |
|---------------------|--|----------|-------------------------|------------------------|----------|----------------------------|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | |
| | 50% | 10% | | 50% | 10% | | | |
| | Cancer | | | | | | | |
| $LADD_{pot}$ | 1.11E-05 | 8.09E-05 | mg/kg/day | 9.70E-06 | 7.06E-05 | mg/kg/day | | |
| LADC _{pot} | 8.55E-04 | 6.22E-03 | mg/L | 0.10 | 0.75 | mg/kg | | |
| Acute | | | | | | | | |
| ADR_{pot} | 2.60E-04 | 2.42E-03 | mg/kg/day | 1.25E-03 | 9.06E-03 | mg/kg/day | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 4 RELEASE ACTIVITY: PROC1: PDM1

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: Subset of 4952

| SIC CODE RESULTS | | | | | | | | |
|------------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|--|--|
| COC (µg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis | | |
| | | | | | 90.00 | High | | |

Note: Number of COC exceedance days

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

| | ENV | TRONMENTAL RELEASES | | |
|----------------------|----------------|-------------------------------|---------------|---------------|
| Scenario#:5 | | Number of Release Sites | : 5. | |
| Release Activity: | PROC2: Max ADR | | | |
| Release Description: | WATER | LANDFILL Non-sludge/Sludge | STACK | FUGITIVE |
| Total Releases: | | | | |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |
| | | Non-sludge/Sludge | | |
| Release Days/yr: | | | | |
| Per Site Release: | | | | |
| | (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5

Number of Sites: 5

RELEASE ACTIVITY:PROC2:

Max ADR

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952

EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 64. | 86. | 8.60 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|------------------|-------------------|-------|-------|------------------|---------------------|---------|---------|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM CONC. (μg/l) | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 29.86 | 69.44 | 110.00 | 130.20 | |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 217.17 | 647.10 | 1108.25 | 1136.06 | |

| DRINI | DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | |
|---------------------|--|----------|-------------------------|-------------|----------------------------|-----------|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingest | Fish Ingestion Units | | | |
| | 50% | 10% | | 50% | 10% | | | |
| | Cancer | | | | | | | |
| $LADD_{pot}$ | 2.88E-05 | 2.09E-04 | mg/kg/day | 2.51E-05 | 1.83E-04 | mg/kg/day | | |
| LADC _{pot} | 2.22E-03 | 1.61E-02 | mg/L | 0.27 | 1.95 | mg/kg | | |
| Acute | | | | | | | | |
| ADR_{pot} | 2.63E-03 | 2.45E-02 | mg/kg/day | 1.26E-02 | 9.16E-02 | mg/kg/day | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

| | ENV | /IRONMENTAL RELEASES | S | |
|----------------------|---------------|-------------------------------|---------------|---------------|
| Scenario#:6 | | Number of Release Site | s: 5. | |
| Release Activity: | PROC2: PDM1 | | | |
| Release Description: | WATER | LANDFILL Non-sludge/Sludge | STACK | FUGITIVE |
| Total Releases: | | | T | |
| Total Releases. | (1/) | (landara) | (1/) | (1/) |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |
| | | Non-sludge/Sludge | | |
| Release Days/yr: | | | | |
| Per Site Release: | | | | |
| | (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6

Number of Sites: 5

RELEASE ACTIVITY:PROC2:

PDM1

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952

EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 64. | 86. | 8.60 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|------------------|-------------------|-------|-------|------------------|---------------------|---------|---------|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM CONC. (μg/l) | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 29.86 | 69.44 | 110.00 | 130.20 | |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 217.17 | 647.10 | 1108.25 | 1136.06 | |

| DRINI | DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | |
|---------------------|--|----------|-------------------------|------------------------|----------|----------------------------|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | |
| | 50% | 10% | | 50% | 10% | | | |
| | Cancer | | | | | | | |
| $LADD_{pot}$ | 2.88E-05 | 2.09E-04 | mg/kg/day | 2.51E-05 | 1.83E-04 | mg/kg/day | | |
| LADC _{pot} | 2.22E-03 | 1.61E-02 | mg/L | 0.27 | 1.95 | mg/kg | | |
| Acute | | | | | | | | |
| ADR_{pot} | 2.63E-03 | 2.45E-02 | mg/kg/day | 1.26E-02 | 9.16E-02 | mg/kg/day | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6 RELEASE ACTIVITY: PROC2: PDM1

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: Subset of 4952

| SIC CODE RESULTS | | | | | | | | |
|------------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|--|--|
| COC (μg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis | | |
| 1.00 | 18 | 64 | 64.00 | 86.00 | 90.00 | High | | |

Note: Number of COC exceedance days > 20.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

| | ENVIRONMENTAL RELEASES | |
|-------------|-----------------------------|--|
| Scenario#:7 | Number of Release Sites: 5. | |

Release Activity: PROC2: PDM2

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|----------|-------------------|-------|----------|
| | | Non-sludge/Sludge | | |
| Total Releases: | 6.00E+04 | N/A | N/A | 0.00 |
| | | - " | - ,, | |

Non-sludge/Sludge

Release Days/yr:
Per Site Release:

| 250.00 | 0.00/0.00 | N/A | 0.00 |
|---------------|---------------|---------------|---------------|
| 48.00 | N/A/0.00 | N/A | 0.00 |
| (kg/site/day) | (kg/site/dav) | (kg/site/dav) | (kg/site/dav) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 7

Number of Sites: 5

RELEASE ACTIVITY:PROC2:

PDM2

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952

EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 250. | 48. | 4.80 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|------------------|-------------------|-------|-------|------------------|---------------------|--------|--------|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM CONC. (μg/l) | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 16.67 | 38.76 | 61.40 | 72.67 | |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 121.21 | 361.17 | 618.56 | 634.08 | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | |
| | 50% | 10% | | 50% | 10% | | | |
| | | (| Cancer | | | | | |
| $LADD_{pot}$ | 6.28E-05 | 4.57E-04 | mg/kg/day | 5.48E-05 | 3.98E-04 | mg/kg/day | | |
| LADC _{pot} | 4.83E-03 | 3.51E-02 | mg/L | 0.58 | 4.25 | mg/kg | | |
| Acute | | | | | | | | |
| ADR_{pot} | 1.47E-03 | 1.37E-02 | mg/kg/day | 7.03E-03 | 5.11E-02 | mg/kg/day | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 7 RELEASE ACTIVITY: PROC2: PDM2

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: Subset of 4952

| SIC CODE RESULTS | | | | | | | | |
|------------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|--|--|
| COC (μg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis | | |
| 1.00 | 68 | 250 | 250.00 | 48.00 | 90.00 | High | | |

Note: Number of COC exceedance days > 20.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

ENVIRONMENTAL RELEASES

Scenario#:8 Number of Release Sites: 1.

Release Activity: PROC3/USE3: Max ADR

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|---------|-------------------|---------|----------|
| | | Non-sludge/Sludge | | |
| Total Releases: | 1246.00 | N/A | N/A | 1700.80 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| 10.00 | 0.00/0.00 | N/A | 10.00 |
|---------------|---------------|---------------|---------------|
| 124.60 | N/A/0.00 | N/A | 170.08 |
| (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 8 Number of Sites: 1 RELEASE

ACTIVITY:PROC3/USE3: Max

ADR

SIC-CODE DESCRIPTION: Pesticides Manufacture

SIC-CODE (S): 2819,2869,2879 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 10. | 124.6 | 12.46 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|------------------|---|--------|--------|--------|---------------------|---------|---------|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) Harmonic Mean 30Q5 7Q10 1Q10 | | | | STREAM CONC. (μg/l) | | | |
| | | Harmonic Mean | | | | | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 1054.81 | 342.90 | 224.38 | 183.26 | 11.81 | 36.34 | 55.53 | 67.99 | |
| ALL | 10 | 37.33 | 9.25 | 5.33 | 4.47 | 333.78 | 1347.03 | 2337.71 | 2787.47 | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | |
| | 50% | 10% | | 50% | 10% | | | |
| | Cancer | | | | | | | |
| $LADD_{pot}$ | 1.78E-06 | 5.03E-05 | mg/kg/day | 1.55E-06 | 4.39E-05 | mg/kg/day | | |
| LADC _{pot} | 1.37E-04 | 3.87E-03 | mg/L | 1.66E-02 | 0.47 | mg/kg | | |
| Acute | | | | | | | | |
| ADR _{pot} | 1.38E-03 | 5.10E-02 | mg/kg/day | 4.98E-03 | 0.14 | mg/kg/day | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)

SCENARIO #: 8 RELEASE ACTIVITY:PROC3/USE3: Max ADR

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites: 1.

Per Site Fugitive Release: 170.08 kg/site/day

Fugitive Release Days per Year: 10.00 days

% Removal via Fugitive Release: 0.00 %

Total Fugitive Release: 1700.80 kg/yr

Max Annual Average Air Concentration 50.90 μg/m³

(Fugitive):

Max 24 Hour Average Air $2.32E+04 \mu g/m^3$

Concentration(Fugitive):

Per Site Stack Release: NA kg/site/day

Stack Release Days per Year: NA days

% Removal via Stack Release: 99.90 %

Total Stack Release: NA kg/yr

Max Annual Average Air Concentration (Stack): 0.00 μg/m³

Max 24 Hour Average Air Concentration (Stack): 0.00 μg/m³

| | D 1: | D 1 | | ASSUM | 1PTIONS | |
|--|--------------------|-----------------------|---------------|---------------|------------|-------------------|
| Exposure Units | Results (Stack) | Results (Fugitive) | ED (years) | AT (years) | BW (kg) | Inh. Rate (m³/hr) |
| Cancer | | | | | | |
| LADD _{pot} (mg/kg/day) | N/A | 3.94E-03 | 33.00 | 78.00 | 80.00 | 0.61 |
| LADC _{pot} (mg/m ³) | N/A | 2.15E-02 | 33.00 | 78.00 | NA | NA |
| Acute | | | | | | |
| ADR _{pot} (mg/kg/day) | N/A | 4.25 | NA | 1 day | 80.00 | 0.61 |

Inhalation Comments:

Stack Parameter Data Fugitive Parameter Data

Stack Height 10.00 Release Height: 3.00 m

Inside Stack 0.10 Length of Release 10.00 m

Diameter: Opening:

Stack Gas Exit 0.10 Width of Release 10.00 m

Velocity: Opening:

Stack Gas 293.00

Temperature:

Meteorological and Terrain Information:

Surrounding Land Use: Rural

Terrain Height: 0.00 m

Distance to Residence of Interest: 100.00 m

Meteorological Class: Full

Stability Class: NA

Wind Speed: NA

Downwash Information:

Facility Length: NA m

Facility Width: NA m

Facility Height: NA m

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

ENVIRONMENTAL RELEASES

Scenario#:9 Number of Release Sites: 1.

Release Activity: PROC3/USE3: PDM1

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|--------------------------|-------------------|---------|----------|
| | | Non-sludge/Sludge | | |
| Total Releases: | Total Releases: 1.27E+04 | | N/A | 0.00 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| | 107.00 | 0.00/0.00 | N/A | 0.00 |
|---|---------------|---------------|---------------|---------------|
| | 119.00 | N/A/0.00 | N/A | 0.00 |
| , | (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9 Number of Sites: 1 RELEASE

ACTIVITY:PROC3/USE3: PDM1

SIC-CODE DESCRIPTION: Pesticides Manufacture

SIC-CODE (S): 2819,2869,2879 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 107. | 119. | 11.90 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|------------------|-------------------|--------|--------|------------------|---------------------|---------|---------|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM CONC. (μg/l) | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 1054.81 | 342.90 | 224.38 | 183.26 | 11.28 | 34.70 | 53.04 | 64.94 | |
| ALL | 10 | 37.33 | 9.25 | 5.33 | 4.47 | 318.78 | 1286.49 | 2232.65 | 2662.19 | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | |
| | 50% | 10% | | 50% | 10% | | | |
| Cancer | | | | | | | | |
| $LADD_{pot}$ | 1.82E-05 | 5.14E-04 | mg/kg/day | 1.59E-05 | 4.48E-04 | mg/kg/day | | |
| LADC _{pot} | 1.40E-03 | 3.95E-02 | mg/L | 0.17 | 4.78 | mg/kg | | |
| Acute | | | | | | | | |
| ADR_{pot} | 1.31E-03 | 4.87E-02 | mg/kg/day | 4.76E-03 | 0.13 | mg/kg/day | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 9 RELEASE ACTIVITY: PROC3/USE3: PDM1

SIC CODE DESCRIPTION: Pesticides Manufacture

ASSOCIATED SIC CODES: 2819,2869,2879

| SIC CODE RESULTS | | | | | | | | | |
|------------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|--|--|--|
| COC (μg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis | | | |
| 1.00 | 29 | 107 | 107.00 | 119.00 | 90.00 | High | | | |

Note: Number of COC exceedance days > 20.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

ENVIRONMENTAL RELEASES

Scenario#:10 Number of Release Sites: 1.

Release Activity: PROC3/USE3: PDM2

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|----------|-------------------|---------|----------|
| | | Non-sludge/Sludge | | |
| Total Releases: | 2.03E+04 | N/A | N/A | 0.00 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| | 250.00 | 0.00/0.00 | N/A | 0.00 |
|---|------------------------|---------------------------|-------------------|---------------|
| ļ | 81.00 (kg/site/day) | N/A/0.00 (kg/site/day) | N/A (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10 Number of Sites: 1 RELEASE

ACTIVITY:PROC3/USE3: PDM2

SIC-CODE DESCRIPTION: Pesticides Manufacture

SIC-CODE (S): 2819,2869,2879 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 250. | 81. | 8.10 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|------------------|-------------------|--------|--------|------------------|---------------------|---------|---------|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM CONC. (μg/l) | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 1054.81 | 342.90 | 224.38 | 183.26 | 7.68 | 23.62 | 36.10 | 44.20 | |
| ALL | 10 | 37.33 | 9.25 | 5.33 | 4.47 | 216.98 | 875.68 | 1519.70 | 1812.08 | |

| DRIN | DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | |
|---------------------|--|----------|-------------------------|------------------------|----------|----------------------------|--|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | | |
| | 50% | 10% | | 50% | 10% | | | | |
| | Cancer | | | | | | | | |
| $LADD_{pot}$ | 2.89E-05 | 8.17E-04 | mg/kg/day | 2.52E-05 | 7.13E-04 | mg/kg/day | | | |
| LADC _{pot} | 2.23E-03 | 6.29E-02 | mg/L | 0.27 | 7.61 | mg/kg | | | |
| Acute | | | | | | | | | |
| ADR_{pot} | 8.95E-04 | 3.32E-02 | mg/kg/day | 3.24E-03 | 9.16E-02 | mg/kg/day | | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 10 RELEASE ACTIVITY: PROC3/USE3: PDM2

SIC CODE DESCRIPTION: Pesticides Manufacture

ASSOCIATED SIC CODES: 2819,2869,2879

| SIC CODE RESULTS | | | | | | | | | |
|------------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|--|--|--|
| COC (μg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis | | | |
| 1.00 | 68 | 250 | 250.00 | 81.00 | 90.00 | High | | | |

Note: Number of COC exceedance days > 20.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

ENVIRONMENTAL RELEASES

Scenario#:11 Number of Release Sites: 1.

Release Activity: PROC3/USE3: Max LADD

| Release Description: | WATER | LANDFILL Non-sludge/Sludge | STACK | FUGITIVE | | | |
|----------------------|---------|----------------------------|-------|----------|--|--|--|
| | | Non-studge/Studge | | | | | |
| Total Releases: | 0.00 | N/A | N/A | 1719.77 | | | |
| | (kg/yr) | (kg/yr) (kg/yr) | | (kg/yr) | | | |
| | | | | | | | |
| Non-sludge/Sludge | | | | | | | |

Release Days/yr: Per Site Release:

| L | (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) | |
|---|---------------|---------------|---------------|---------------|--|
| | 0.00 | N/A/0.00 | N/A | 1719.77 | |
| | 0.00 | 0.00/0.00 | N/A | 1.00 | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)

SCENARIO #: 11 RELEASE ACTIVITY:PROC3/USE3: Max LADD

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites: 1.

Per Site Fugitive Release: 1719.77 kg/site/day

Fugitive Release Days per Year: 1.00 days

% Removal via Fugitive Release: 0.00 %

Total Fugitive Release: 1719.77 kg/yr

Max Annual Average Air Concentration 51.50 μg/m³

(Fugitive):

Max 24 Hour Average Air $N/A \mu g/m^3$

Concentration(Fugitive):

Per Site Stack Release: NA kg/site/day

Stack Release Days per Year: NA days

% Removal via Stack Release: 99.90 %

Total Stack Release: NA kg/yr

Max Annual Average Air Concentration (Stack): 0.00 μg/m³

Max 24 Hour Average Air Concentration (Stack): N/A μg/m³

| | D 1: | D 1: | ASSUMPTIONS | | | | | |
|--|--------------------|-----------------------|---------------|---------------|------------|-------------------|--|--|
| Exposure Units | Results (Stack) | Results (Fugitive) | ED (years) | AT (years) | BW (kg) | Inh. Rate (m³/hr) | | |
| Cancer | | | | | | | | |
| LADD _{pot} (mg/kg/day) | N/A | 3.99E-03 | 33.00 | 78.00 | 80.00 | 0.61 | | |
| LADC _{pot} (mg/m ³) | N/A | 2.18E-02 | 33.00 | 78.00 | NA | NA | | |
| Acute | | | | | | | | |
| ADR _{pot} (mg/kg/day) | N/A | N/A | NA | 1 day | 80.00 | 0.61 | | |

Inhalation Comments:

Stack Parameter Data Fugitive Parameter Data

Stack Height 10.00 Release Height: 3.00 m

Inside Stack 0.10 Length of Release 10.00 m

Diameter: Opening:

Stack Gas Exit 0.10 Width of Release 10.00 m

Velocity: Opening:

Stack Gas 293.00

Temperature:

Meteorological and Terrain Information:

Surrounding Land Use: Rural

Terrain Height: 0.00 m

Distance to Residence of Interest: 100.00 m

Meteorological Class: Full

Stability Class: NA

Wind Speed: NA

Downwash Information:

Facility Length: NA m

Facility Width: NA m

Facility Height: NA m

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

Scenario#:12 Number of Release Sites: 300.

Release Activity: PROC4: Max ADR

| Release Description: | WATER | LANDFILL | LANDFILL STACK | | | |
|----------------------|----------|-------------------|----------------|---------|--|--|
| | | Non-sludge/Sludge | | | | |
| Total Releases: | 1.16E+04 | N/A | N/A | 0.00 | | |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) | | |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| | 1.00 | 0.00/0.00 | N/A | 0.00 | |
|---|---------------|---------------|---------------|---------------|--|
| | 38.75 | N/A/0.00 | N/A | 0.00 | |
| - | (kg/site/day) | (kg/site/day) | (kg/site/dav) | (kg/site/day) | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 12 Number of Sites: 300 RELEASE ACTIVITY:PROC4:

Max ADR

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 1. | 38.75 | 3.87 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|------------------|-------------------|-------|-------|------------------|---------------------|--------|--------|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM CONC. (μg/l) | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 13.45 | 31.29 | 49.57 | 58.67 | |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 97.85 | 291.57 | 499.36 | 511.89 | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | | |
| | 50% | 10% | | 50% | 10% | | | | |
| Cancer | | | | | | | | | |
| $LADD_{pot}$ | 2.03E-07 | 1.47E-06 | mg/kg/day | 1.77E-07 | 1.29E-06 | mg/kg/day | | | |
| LADC _{pot} | 1.56E-05 | 1.13E-04 | mg/L | 1.89E-03 | 1.37E-02 | mg/kg | | | |
| Acute | | | | | | | | | |
| ADR_{pot} | 1.19E-03 | 1.10E-02 | mg/kg/day | 5.68E-03 | 4.13E-02 | mg/kg/day | | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

| ENVIRONMENTAL | RELEASES |
|---------------|----------|
| | KLLLADLD |

Scenario#:13 Number of Release Sites: 300.

Release Activity: PROC4: PDM1

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|----------|-------------------|---------|----------|
| | | Non-sludge/Sludge | | |
| Total Releases: | 5.63E+04 | N/A | N/A | 0.00 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| | 250.00 | 0.00/0.00 | N/A | 0.00 |
|---|---------------|---------------|---------------|---------------|
| | 0.75 | N/A/0.00 | N/A | 0.00 |
| , | (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13 Number of Sites: 300 RELEASE ACTIVITY:PROC4:

PDM1

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 250. | 0.75 | 7.50E-02 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | | | | |
|---------------|--|------------------|-----------|----------|-------|------------------|----------|-------------|------|--|--|--|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FI | LOW (MLD |) | | STREAM C | ONC. (µg/l) | | | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | | | | |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 0.26 | 0.61 | 0.96 | 1.14 | | | | |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 1.89 | 5.64 | 9.66 | 9.91 | | | | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|--|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | | | |
| | 50% | 10% | | 50% | 10% | | | | | |
| Cancer | | | | | | | | | | |
| $LADD_{pot}$ | 9.81E-07 | 7.13E-06 | mg/kg/day | 8.56E-07 | 6.23E-06 | mg/kg/day | | | | |
| LADC _{pot} | 7.55E-05 | 5.49E-04 | mg/L | 9.13E-03 | 6.64E-02 | mg/kg | | | | |
| Acute | | | | | | | | | | |
| ADR_{pot} | 2.29E-05 | 2.14E-04 | mg/kg/day | 1.10E-04 | 7.99E-04 | mg/kg/day | | | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13 RELEASE ACTIVITY: PROC4: PDM1

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: Subset of 4952

| | SIC CODE RESULTS | | | | | | | | | | | |
|------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|--|--|--|--|--|--|
| COC (μg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis | | | | | | |
| 1.00 | 54 | 197 | 250.00 | 0.75 | 90.00 | High | | | | | | |

Note: Number of COC exceedance days > 20.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

ENVIRONMENTAL RELEASES

Scenario#:14 Number of Release Sites: 16.

Release Activity: PROC/USE5: Max ADR

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|----------|-------------------|---------|----------|
| | | Non-sludge/Sludge | | |
| Total Releases: | 7.56E+04 | N/A | N/A | 0.00 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| 112.00 | 0.00/0.00 | N/A | 0.00 |
|---------------|---------------|---------------|---------------|
| 42.20 | N/A/0.00 | N/A | 0.00 |
| (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 14 Number of Sites: 16 RELEASE

ACTIVITY:PROC/USE5: Max

ADR

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | ELEASE RELEASE | | BCF (L/kg) |
|-----------------------|-----------------|--|----------------|------|---------------|
| 90.00 | 112. | 42.2 | 4.22 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | | | | |
|---------------|--|------------------|-------------------|--------|--------|------------------|----------|-------------|--------|--|--|--|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM C | ONC. (µg/l) | | | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | | | | |
| ALL | 50 | 2825.61 | 935.49 | 634.16 | 514.20 | 1.49 | 4.51 | 6.65 | 8.21 | | | | |
| ALL | 10 | 50.57 | 9.38 | 5.41 | 4.53 | 83.45 | 449.89 | 780.04 | 931.57 | | | | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|--|--|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | | | | |
| | 50% | 10% | | 50% | 10% | | | | | | |
| Cancer | | | | | | | | | | | |
| $LADD_{pot}$ | 2.52E-06 | 1.41E-04 | mg/kg/day | 2.20E-06 | 1.23E-04 | mg/kg/day | | | | | |
| LADC _{pot} | 1.94E-04 | 1.08E-02 | mg/L | 2.35E-02 | 1.31 | mg/kg | | | | | |
| Acute | | | | | | | | | | | |
| ADR _{pot} | 1.71E-04 | 1.70E-02 | mg/kg/day | 6.30E-04 | 3.52E-02 | mg/kg/day | | | | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

Scenario#:15 Number of Release Sites: 16.

Release Activity: PROC/USE5: PDM1

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE | |
|----------------------|----------|-------------------|---------|----------|--|
| | | Non-sludge/Sludge | | | |
| Total Releases: | 7.56E+04 | N/A | N/A | 0.00 | |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) | |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| 112.00 42.20 | 0.00/0.00 N/A/0.00 | N/A N/A | 0.00 | |
|-----------------|-----------------------|---------------|---------------|--|
| (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 15 Number of Sites: 16 RELEASE

ACTIVITY:PROC/USE5: PDM1

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 112. | 42.2 | 4.22 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|-------------------|--------|--------|--------|---------------------|--------|--------|--------|--|
| PLANT TYPE | % ILE FACILITY | STREAM FLOW (MLD) | | | | STREAM CONC. (μg/l) | | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 2825.61 | 935.49 | 634.16 | 514.20 | 1.49 | 4.51 | 6.65 | 8.21 | |
| ALL | 10 | 50.57 | 9.38 | 5.41 | 4.53 | 83.45 | 449.89 | 780.04 | 931.57 | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | | |
| | 50% | 10% | | 50% | 10% | | | | |
| | Cancer | | | | | | | | |
| $LADD_{pot}$ | 2.52E-06 | 1.41E-04 | mg/kg/day | 2.20E-06 | 1.23E-04 | mg/kg/day | | | |
| LADC _{pot} | 1.94E-04 | 1.08E-02 | mg/L | 2.35E-02 | 1.31 | mg/kg | | | |
| Acute | | | | | | | | | |
| ADR_{pot} | 1.71E-04 | 1.70E-02 | mg/kg/day | 6.30E-04 | 3.52E-02 | mg/kg/day | | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 15 RELEASE ACTIVITY: PROC/USE5: PDM1

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

| SIC CODE RESULTS | | | | | | | | | |
|------------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|--|--|--|
| COC (μg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis | | | |
| 1.00 | 31 | 112 | 112.00 | 42.20 | 90.00 | High | | | |

Note: Number of COC exceedance days > 20.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

Scenario#:16 Number of Release Sites: 16.

Release Activity: PROC/USE5: PDM2

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|----------|-------------------|-------|----------|
| | | Non-sludge/Sludge | | |
| T-4-1 D-1 | 1.600.04 | 27/4 | 27/4 | 0.00 |
| Total Releases: | 1.68E+04 | N/A | N/A | 0.00 |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| L | 250.00 | 0.00/0.00 | N/A | 0.00 | |
|---|--------------------|---------------------------|-------------------|--------------------|--|
| L | 4.20 (kg/site/day) | N/A/0.00 (kg/site/day) | N/A (kg/site/day) | 0.00 (kg/site/day) | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 16 Number of Sites: 16 RELEASE

ACTIVITY:PROC/USE5: PDM2

SIC-CODE DESCRIPTION: Organic Chemicals Manufacture

SIC-CODE (S): 2865,2869 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 250. | 4.2 | 0.42 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|-------------------|--------|--------|--------|---------------------|-------|-------|-------|--|
| PLANT TYPE | % ILE FACILITY | STREAM FLOW (MLD) | | | | STREAM CONC. (μg/l) | | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 2825.61 | 935.49 | 634.16 | 514.20 | 0.15 | 0.45 | 0.66 | 0.82 | |
| ALL | 10 | 50.57 | 9.38 | 5.41 | 4.53 | 8.31 | 44.78 | 77.63 | 92.72 | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units |
| | 50% | 10% | | 50% | 10% | |
| | Cancer | | | | | |
| $LADD_{pot}$ | 5.60E-07 | 3.13E-05 | mg/kg/day | 4.89E-07 | 2.73E-05 | mg/kg/day |
| LADC _{pot} | 4.31E-05 | 2.41E-03 | mg/L | 5.21E-03 | 0.29 | mg/kg |
| Acute | | | | | | |
| ADR_{pot} | 1.70E-05 | 1.70E-03 | mg/kg/day | 6.27E-05 | 3.50E-03 | mg/kg/day |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 16 RELEASE ACTIVITY: PROC/USE5: PDM2

SIC CODE DESCRIPTION: Organic Chemicals Manufacture

ASSOCIATED SIC CODES: 2865,2869

| SIC CODE RESULTS | | | | | | |
|------------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|
| COC (μg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis |
| 1.00 | 60 | 219 | 250.00 | 4.20 | 90.00 | High |

Note: Number of COC exceedance days > 20.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

Scenario#:17 Number of Release Sites: 300.

Release Activity: USE1: Max ADR

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE | | |
|----------------------|----------|-----------|---------|----------|--|--|
| Non-sludge/Sludge | | | | | | |
| Total Releases: | 7.65E+05 | N/A | N/A | 2.60E+07 | | |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) | | |
| Non-sludge/Sludge | | | | | | |
| Release Days/yr: | 250.00 | 0.00/0.00 | N/A | 250.00 | | |

Per Site Release:

| 250.00 | 0.00/0.00 | N/A | 250.00 | |
|---------------|---------------|---------------|---------------|--|
| 10.20 | N/A/0.00 | N/A | 346.15 | |
| (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 17 Number of Sites: 300 RELEASE ACTIVITY:USE1:

Max ADR

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 250. | 10.2 | 1.02 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | |
|---------------|--|------------------|-------------------|-------|-------|---------------------|-------|--------|--------|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | STREAM CONC. (μg/l) | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 3.54 | 8.24 | 13.05 | 15.44 |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 25.76 | 76.75 | 131.44 | 134.74 |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units |
| | 50% | 10% | | 50% | 10% | |
| Cancer | | | | | | |
| $LADD_{pot}$ | 1.33E-05 | 9.70E-05 | mg/kg/day | 1.16E-05 | 8.47E-05 | mg/kg/day |
| LADC _{pot} | 1.03E-03 | 7.46E-03 | mg/L | 0.12 | 0.90 | mg/kg |
| Acute | | | | | | |
| ADR_{pot} | 3.12E-04 | 2.91E-03 | mg/kg/day | 1.49E-03 | 1.09E-02 | mg/kg/day |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)

SCENARIO #: 17 RELEASE ACTIVITY:USE1: Max ADR

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites: 300.

Per Site Fugitive Release: 346.15 kg/site/day

Fugitive Release Days per Year: 250.00 days

% Removal via Fugitive Release: 0.00 %

Total Fugitive Release: 2.60E+07 kg/yr

Max Annual Average Air Concentration 110.00 μg/m³

(Fugitive):

Max 24 Hour Average Air 6560.00 μg/m³

Concentration(Fugitive):

Per Site Stack Release: NA kg/site/day

Stack Release Days per Year: NA days

% Removal via Stack Release: 99.90 %

Total Stack Release: NA kg/yr

Max Annual Average Air Concentration (Stack): 0.00 μg/m³

Max 24 Hour Average Air Concentration (Stack): 0.00 μg/m³

| | D 1: | D 1: | ASSUMPTIONS | | | | |
|--|--------------------|-----------------------|-------------|---------------|------------|-------------------|--|
| Exposure Units | Results (Stack) | Results (Fugitive) | ED (years) | AT (years) | BW (kg) | Inh. Rate (m³/hr) | |
| Cancer | | | | | | | |
| LADD _{pot} (mg/kg/day) | N/A | 8.52E-03 | 33.00 | 78.00 | 80.00 | 0.61 | |
| LADC _{pot} (mg/m ³) | N/A | 4.65E-02 | 33.00 | 78.00 | NA | NA | |
| Acute | | | | | | | |
| ADR _{pot} (mg/kg/day) | N/A | 1.20 | NA | 1 day | 80.00 | 0.61 | |

Inhalation Comments:

Stack Parameter Data Fugitive Parameter Data

Stack Height 10.00 m Release Height: 3.00 m

Inside Stack 0.10 m Length of Release 10.00 m

Diameter: Opening:

Stack Gas Exit 0.10 m/sec Width of Release 10.00 m

Velocity: Opening:

Stack Gas 293.00 K

Temperature:

Meteorological and Terrain Information:

Surrounding Land Use: Rural

Terrain Height: 0.00

Distance to Residence of Interest: 0.00

Meteorological Class: Full

Stability Class: NA

Wind Speed: NA ft/sec

Downwash Information:

Facility Length: NA

Facility Width: NA m

Facility Height: NA m

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

| ENVIRONMENTAL | RELEASES |
|-----------------|----------|
| LIVINONWILIVIAL | KLLLADLD |

Scenario#:18 Number of Release Sites: 300.

Release Activity: USE1: PDM1

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|-------------------|----------|-------|----------|
| | Non-sludge/Sludge | | | |
| Total Releases: | 7.65E+05 | N/A | N/A | 0.00 |
| | | | | |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| | 250.00 | 0.00/0.00 | N/A | 0.00 |
|---|---------------|---------------|---------------|---------------|
| | 10.20 | N/A/0.00 | N/A | 0.00 |
| , | (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 18 Number of Sites: 300 RELEASE ACTIVITY:USE1:

PDM1

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 250. | 10.2 | 1.02 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | | |
|---------------|--|------------------|-------------------|-------|-------|------------------|----------|-------------|--------|--|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM C | ONC. (µg/l) | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | | |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 3.54 | 8.24 | 13.05 | 15.44 | | |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 25.76 | 76.75 | 131.44 | 134.74 | | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | | |
| | | 50% | 10% | | | | | | |
| | Cancer | | | | | | | | |
| $LADD_{pot}$ | 1.33E-05 | 9.70E-05 | mg/kg/day | 1.16E-05 | 8.47E-05 | mg/kg/day | | | |
| LADC _{pot} | mg/L | 0.12 | 0.90 | mg/kg | | | | | |
| Acute | | | | | | | | | |
| ADR_{pot} | 3.12E-04 | 2.91E-03 | mg/kg/day | 1.49E-03 | 1.09E-02 | mg/kg/day | | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 18 RELEASE ACTIVITY: USE1: PDM1

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: Subset of 4952

| | SIC CODE RESULTS | | | | | | | | | | | |
|------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|--|--|--|--|--|--|
| COC (μg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis | | | | | | |
| 1.00 | 68 | 250 | 250.00 | 10.20 | 90.00 | High | | | | | | |

Note: Number of COC exceedance days > 20.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

ENVIRONMENTAL RELEASES

Scenario#:19 Number of Release Sites: 300.

Release Activity: USE1: Max LADD

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|---------|----------|---------|----------|
| | | | | |
| Total Releases: | 0.00 | N/A | N/A | 2.60E+07 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| | 0.00 | 0.00/0.00 | N/A | 1.00 |
|---|---------------|---------------|---------------|---------------|
| | 0.00 | N/A/0.00 | N/A | 8.65E+04 |
| , | (kg/site/day) | (kg/site/day) | (kg/site/dav) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)

SCENARIO #: 19 RELEASE ACTIVITY:USE1: Max LADD

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites: 300.

Per Site Fugitive Release: 8.65E+04 kg/site/day

Fugitive Release Days per Year: 1.00 days

% Removal via Fugitive Release: 0.00 %

Total Fugitive Release: 2.60E+07 kg/yr

Max Annual Average Air Concentration 110.00 μg/m³

(Fugitive):

Max 24 Hour Average Air $N/A \mu g/m^3$

Concentration(Fugitive):

Per Site Stack Release:

NA kg/site/day

Stack Release Days per Year: NA days

% Removal via Stack Release: 99.90 %

Total Stack Release: NA kg/yr

Max Annual Average Air Concentration (Stack): 0.00 μg/m³

Max 24 Hour Average Air Concentration (Stack): N/A μg/m³

| | D 1: | D 1: | ASSUMPTIONS | | | | | | | |
|--|--------------------|-----------------------|-------------|---------------|------------|-------------------|--|--|--|--|
| Exposure Units | Results (Stack) | Results (Fugitive) | ED (years) | AT (years) | BW (kg) | Inh. Rate (m³/hr) | | | | |
| Cancer | | | | | | | | | | |
| LADD _{pot} (mg/kg/day) | N/A | 8.52E-03 | 33.00 | 78.00 | 80.00 | 0.61 | | | | |
| LADC _{pot} (mg/m ³) | N/A | 4.65E-02 | 33.00 | 78.00 | NA | NA | | | | |
| Acute | | | | | | | | | | |
| ADR _{pot} (mg/kg/day) | N/A | N/A | NA | 1 day | 80.00 | 0.61 | | | | |

Inhalation Comments:

Stack Parameter Data Fugitive Parameter Data

Stack Height 10.00 m Release Height: 3.00 m

Inside Stack 0.10 m Length of Release 10.00 m

Diameter: Opening:

Stack Gas Exit 0.10 m/sec Width of Release 10.00 m

Velocity: Opening:

Stack Gas 293.00 K

Temperature:

Meteorological and Terrain Information:

Surrounding Land Use: Rural

Terrain Height: 0.00

Distance to Residence of Interest: 0.00

Meteorological Class: Full

Stability Class: NA

Wind Speed: NA ft/sec

Downwash Information:

Facility Length: NA

Facility Width: NA m

Facility Height: NA m

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

Scenario#:20 Number of Release Sites: 75600.

Release Activity: USE2: Max ADR

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|----------|-------------------|---------|----------|
| | | Non-sludge/Sludge | | |
| Total Releases: | 3.78E+06 | N/A | N/A | 0.00 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| 250.00 | 0.00/0.00 | N/A | 0.00 | |
|--------------------|---------------------------|---------------|--------------------|--|
| 0.20 (kg/site/day) | N/A/0.00 (kg/site/day) | (kg/site/day) | 0.00 (kg/site/day) | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 20 Number of Sites: 7.56E+04

RELEASE ACTIVITY:USE2:

Max ADR

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 250. | 0.2 | 2.00E-02 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | | |
|---------------|--|------------------|-------------------|-------|-------|------------------|----------|-------------|------|--|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM C | ONC. (µg/l) | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | | |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 6.94E-02 | 0.16 | 0.26 | 0.30 | | |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 0.51 | 1.50 | 2.58 | 2.64 | | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | |
| | 50% | 10% | | 50% | 10% | | |
| Cancer | | | | | | | |
| $LADD_{pot}$ | 2.62E-07 | 1.90E-06 | mg/kg/day | 2.28E-07 | 1.66E-06 | mg/kg/day | |
| LADC _{pot} | 2.01E-05 | 1.46E-04 | mg/L | 2.43E-03 | 1.77E-02 | mg/kg | |
| Acute | | | | | | | |
| ADR_{pot} | 6.12E-06 | 5.70E-05 | mg/kg/day | 2.93E-05 | 2.13E-04 | mg/kg/day | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

| ENVIRONMENTAL | RELEASES |
|---------------|----------|
| | KLLLADLD |

Scenario#:21 Number of Release Sites: 75600.

Release Activity: USE2: PDM1

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|----------|-------------------|---------|----------|
| | | Non-sludge/Sludge | | |
| Total Releases: | 3.78E+06 | N/A | N/A | 0.00 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| 250.00 | 0.00/0.00 | N/A | 0.00 |
|---------------|---------------|---------------|---------------|
| 0.20 | N/A/0.00 | N/A | 0.00 |
| (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 21 Number of Sites: 7.56E+04

RELEASE ACTIVITY:USE2:

PDM1

SIC-CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

SIC-CODE (S): Subset of 4952 EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 250. | 0.2 | 2.00E-02 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|------------------|-------------------|-------|-------|---------------------|------|------|------|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | STREAM CONC. (µg/l) | | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 288.00 | 123.84 | 78.18 | 66.05 | 6.94E-02 | 0.16 | 0.26 | 0.30 | |
| ALL | 10 | 39.60 | 13.29 | 7.76 | 7.57 | 0.51 | 1.50 | 2.58 | 2.64 | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | |
| | 50% | 10% | | 50% | 10% | | |
| Cancer | | | | | | | |
| $\mathrm{LADD}_{\mathrm{pot}}$ | 2.62E-07 | 1.90E-06 | mg/kg/day | 2.28E-07 | 1.66E-06 | mg/kg/day | |
| LADC _{pot} | 2.01E-05 | 1.46E-04 | mg/L | 2.43E-03 | 1.77E-02 | mg/kg | |
| Acute | | | | | | | |
| ADR_{pot} | 6.12E-06 | 5.70E-05 | mg/kg/day | 2.93E-05 | 2.13E-04 | mg/kg/day | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 21 RELEASE ACTIVITY: USE2: PDM1

SIC CODE DESCRIPTION: POTW (Indust., includes POTWs which receive ind. disch.)

ASSOCIATED SIC CODES: Subset of 4952

| SIC CODE RESULTS | | | | | | | | |
|------------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|--|--|
| COC (μg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis | | |
| 1.00 | 28 | 102 | 250.00 | 0.20 | 90.00 | High | | |

Note: Number of COC exceedance days > 20.

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

Scenario#:22 Number of Release Sites: 14000.

Release Activity: USE4: Max ADR

| Release Description: | WATER | WATER LANDFILL | | FUGITIVE |
|----------------------|----------|----------------|-----|----------|
| | | | | |
| Total Releases: | 3.18E+05 | N/A | N/A | 0.00 |
| | | | | |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| 6.00 | 0.00/0.00 | N/A | 0.00 |
|---------------|---------------|---------------|---------------|
| 3.78 | N/A/0.00 | N/A | 0.00 |
| (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 22 Number of Sites: 1.40E+04 RELEASE ACTIVITY:USE4:

Max ADR

SIC-CODE DESCRIPTION: Metal Finishing

SIC-CODE (S): 34xx - 39xx EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 6. | 3.78 | 0.38 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | | |
|---------------|--|------------------|-------------------|-------|-------|------------------|----------|-------------|--------|--|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM C | ONC. (µg/l) | | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | | |
| ALL | 50 | 300.46 | 107.45 | 67.50 | 55.59 | 1.26 | 3.52 | 5.60 | 6.80 | | |
| ALL | 10 | 23.74 | 4.69 | 2.64 | 2.27 | 15.92 | 80.60 | 143.18 | 166.52 | | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|--|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | | | |
| | 50% | 10% | | 50% | 10% | | | | | |
| | Cancer | | | | | | | | | |
| $LADD_{pot}$ | 1.14E-07 | 1.44E-06 | mg/kg/day | 9.93E-08 | 1.26E-06 | mg/kg/day | | | | |
| LADC _{pot} | 8.75E-06 | 1.11E-04 | mg/L | 1.06E-03 | 1.34E-02 | mg/kg | | | | |
| Acute | | | | | | | | | | |
| ADR_{pot} | 1.33E-04 | 3.05E-03 | mg/kg/day | 5.31E-04 | 6.72E-03 | mg/kg/day | | | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400 Assessor: Wong/Sarraino/EN

Scenario#:23 Number of Release Sites: 14000.

Release Activity: USE4: PDM1

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|----------|----------|---------|----------|
| | | | | |
| Total Releases: | 5.46E+06 | N/A | N/A | 0.00 |
| | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr: Per Site Release:

| | 247.00 | 0.00/0.00 | N/A | 0.00 |
|---|---------------|---------------|---------------|---------------|
| | 1.58 | N/A/0.00 | N/A | 0.00 |
| , | (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 23 Number of Sites: 1.40E+04 RELEASE ACTIVITY:USE4:

PDM1

SIC-CODE DESCRIPTION: Metal Finishing

SIC-CODE (S): 34xx - 39xx EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | RELEASE DAYS | PRETREATMENT RELEASE (kg/site/day) | POSTTREATMENT RELEASE (kg/site/day) | DWT (%) | BCF (L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| 90.00 | 247. | 1.58 | 0.16 | 0.00 | 121.00 |

| | AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | | | |
|---------------|--|------------------|-------------------|-------|-------|------------------|----------|-------------|-------|--|
| PLANT TYPE | % ILE FACILITY | | STREAM FLOW (MLD) | | | | STREAM C | ONC. (µg/l) | | |
| | | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | |
| ALL | 50 | 300.46 | 107.45 | 67.50 | 55.59 | 0.53 | 1.47 | 2.34 | 2.84 | |
| ALL | 10 | 23.74 | 4.69 | 2.64 | 2.27 | 6.66 | 33.69 | 59.85 | 69.60 | |

| DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | | | |
|--|------------------------|----------|-------------------------|------------------------|----------|----------------------------|--|--|--|--|
| Exposure Units | Drinking Water Results | | Drinking Water Units | Fish Ingestion Results | | Fish Ingestion Units | | | | |
| | 50% | 10% | | 50% | 10% | | | | | |
| | Cancer | | | | | | | | | |
| $LADD_{pot}$ | 1.96E-06 | 2.48E-05 | mg/kg/day | 1.71E-06 | 2.16E-05 | mg/kg/day | | | | |
| LADC _{pot} | 1.51E-04 | 1.91E-03 | mg/L | 1.82E-02 | 0.23 | mg/kg | | | | |
| Acute | | | | | | | | | | |
| ADR_{pot} | 5.57E-05 | 1.28E-03 | mg/kg/day | 2.22E-04 | 2.81E-03 | mg/kg/day | | | | |

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-16-0400

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 23 RELEASE ACTIVITY: USE4: PDM1

SIC CODE DESCRIPTION: Metal Finishing ASSOCIATED SIC CODES: 34xx - 39xx

| | SIC CODE RESULTS | | | | | | | | | | |
|------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|--|--|--|--|--|
| COC (μg/L) | Percent of Year COC Exceeded | Number of Days COC Exceeded | Release days/year | Loading (kg/site/day) | Waste Water Treatment (%) | High/Avg Analysis | | | | | |
| 1.00 | 59 | 215 | 247.00 | 1.58 | 90.00 | High | | | | | |

Note: Number of COC exceedance days > 20.

INITIAL REVIEW EXPOSURE REPORT

CHEMICAL ID: P-16-0400

ENVIRONMENTAL RELEASES OF CHEMICALS IN HOUSEHOLD PRODUCTS

SCENARIO #: 4

EXPOSED POPULATION: Adult

| WWT REMOVAL (%) | PRODUCTION VOLUME (kg/yr) | HOUSEHOLD RELEASE DAYS | PRETREATMENT RELEASE (g/person/day) | POST-TREATMENT RELEASE (g/person/day) | BODY WEIGHT (kg) | BCF (L/kg) |
|-----------------------|---------------------------------|------------------------------|---|---|------------------------|---------------|
| 90.00 | 6.35E+07 | 365.00 | 0.60 | 5.98E-02 | 80.00 | 121.00 |

High-end scenario

| CONCENTRATION OF CONCERN (ug/L) | NUMBER OF DAYS CONCENTRATION OF CONCERN EXCEEDED | PERCENT OF YEAR CONCENTRATION OF CONCERN EXCEEDED |
|---------------------------------------|---|--|
| 1.00 | 360.27 | 98.70 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

| | 10 th PERCENTILE DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | | | | | |
|---------------------|--|------------------------|---------------|---------------|------------------|--------------------|--|--|--|--|--|
| Г | | | | ASSUM | PTIONS | | | | | | |
| Exposure Units | Drinking Water Results | Fish Ingestion Results | ED (years) | AT (years) | DW IR (L/day) | FISH IR (g/day) | | | | | |
| Cancer | | | | | | | | | | | |
| $LADD_{pot}$ | 1.85E-04 mg/kg/day | 1.61E-04 mg/kg/day | 57.00 | 78.00 | 1.04 | 7.50 | | | | | |
| LADC _{pot} | 1.42E-02 mg/L | 1.71 mg/kg | 57.00 | 78.00 | NA | NA | | | | | |
| Acute | | | | | | | | | | | |
| ADR_{pot} | 3.24E-03 mg/kg/day | 3.61E-02 mg/kg/day | NA | 1 day | 3.03 | 279.00 | | | | | |

| | 50 th PERCENTILE DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES | | | | | | |
|--|--|------------------------|---------------|---------------|------------------|--------------------|--|
| | | | ASSUMPTIONS | | | | |
| Exposure Units | Drinking Water Results | Fish Ingestion Results | ED (years) | AT (years) | DW IR (L/day) | FISH IR (g/day) | |
| | Cancer | | | | | | |
| LADD _{pot} | 1.09E-05 mg/kg/day | 9.48E-06 mg/kg/day | 57.00 | 78.00 | 1.04 | 7.50 | |
| LADC _{pot} 8.36E-04 mg/L 0.10 mg/kg | | | 57.00 | 78.00 | NA | NA | |
| | Acute | | | | | | |
| ADR_{pot} | 1.47E-04 mg/kg/day | 1.64E-03 mg/kg/day | NA | 1 day | 3.03 | 279.00 | |

| 50 th PERCENTILE AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | |
|--|---------------|-------|-------|-------|--|--|
| DESCRIPTOR | Harmonic Mean | 30Q5 | 7Q10 | 1Q10 | | |
| STREAM DILUTION FACTOR | 134.85 | 39.66 | 24.22 | 20.08 | | |
| CONCENTRATION (μg/L) | 1.14 | 3.89 | 6.37 | 7.68 | | |

| 10 th PERCENTILE AQUATIC EXPOSURE ESTIMATES - SURFACE WATER | | | | | | | |
|--|---|-------|--------|--------|--|--|--|
| DESCRIPTOR | DESCRIPTOR Harmonic Mean 30Q5 7Q10 1Q10 | | | | | | |
| STREAM DILUTION FACTOR | 7.95 | 1.80 | 1.00 | 1.00 | | | |
| CONCENTRATION (µg/L) | 19.39 | 85.66 | 154.19 | 154.19 | | | |

| CEM Inputs | | ID Number: P-16-0400 | | |
|--|----------|---|-------|--|
| Product: unknown | | Chemical Name: P-16-0400 | | |
| | | Population: Adult | | |
| Scenario: General Purpose Cleaner | 150 | · · · · · · · · · · · · · · · · · · · | | |
| Molecular Weight (g/mole): | 156 | Vapor Pressure (torr) | 0.27 | |
| Consumer Product Weight Fraction - Central Tendency (unitless): | 0.05 | Consumer Product Weight Fraction - High- End (unitless): | 0.05 | |
| Inhalation Inputs | | | | |
| Frequency of Use (chronic) (events/yr): | 300 | Exposure Duration (chronic) (years): | 57 | |
| Frequency of Use (acute) (events/day): | 1 | Exposure Duration (acute) (days): | 1 | |
| Mass of Product Used per Event - Central Tendency (g): | 61.5 | Mass of Product Used per Event - High-End (g): | 123 | |
| Inhalation Rate During Use (m ³ /hr): | 0.74 | Duration of Event - Central Tendency (hours/event): | 0.667 | |
| Inhalation Rate After Use (m³/hr): | 0.611 | Duration of Event - High-End (hours/event): | 1.42 | |
| Zone 1 Volume (m ³): | 36 | Whole House Volume (m ³): | 523 | |
| Air Exchange Rate (air exchanges/hr): | 0.45 | Body Weight (kg): | 80 | |
| Activity Patterns (Note: 1=Bedroom 2 5=Utility Room | | Bathroom 4=Living Room =Out) | | |
| User: 11111112215424 | 6742274 | 4 4 1 | | |
| Non-User: 11111111324424 | 7742274 | 4 4 1 | | |
| Hour: 0 6 12 | 18 | | | |
| Start Time: 7 | | Room of Use: 2. Kitchen | | |
| Dermal Inputs | | | | |
| Frequency of Use (chronic) (events/yr): | 300 | SA/BW (cm2/kg): | 12.3 | |
| Frequency of Use (acute) (events/day): | 1 | | | |
| | | Exposure Duration (chronic) (years): | 57 | |
| Amount Retained / Absorbed to Skin (g/cm2-event): | 3.49e-05 | Exposure Duration (acute) (days): | 1 | |
| Averaging Time (chronic) (days): | 2.85e+04 | Averaging Time (acute) (days): | 1 | |

| CEM Inhalation | n Exposure Estin | nates |
|--|------------------|--------------------------------------|
| ID Number: P-16-0400 | | |
| Scenario: General Purpose Cleaner | Population: Ad | ult |
| Exposure Duration (years) chronic: 57 | Exposure Dura | tion (days) acute: 1 |
| | | |
| | | |
| Exposure Units | Result | AT (days) |
| Chronic Cancer | | |
| LADD _{pot} (mg/kg-day) | 1.11e-01 | 2.85e+04 |
| LADC _{pot} (mg/m ³) | 5.78e-01 | 2.85e+04 |
| Acute | | |
| ADR _{pot} (mg/kg-day) | 3.48e-01 | 1 |
| Cp _{pot} (mg/m ³) | 1.79e+01 | NA |
| | 1 | |
| LADD - Lifetime Average Daily Dose (mg/kg-day) | LADC - Lifetir | me Average Daily Concentration (mg/m |
| ADR - Acute Dose Rate (mg/kg-day) | Cp - Peak Cond | centration (mg/m³) |

Note: 78 years = 2.85e+04 days pot - potential dose

Note: The general Agency guidance for assessing short-term, infrequent events (for most chemicals, an exposure of less than 24 hours that occurs no more frequently than monthly) is to treat such events as independent, acute exposures rather than as chronic exposure. (Methods for Exposure-Response Analysis for Acute Inhalation Exposure to Chemicals (External Review Draft). EPA/600/R-98/051. April 1998)

| CEM Dermal Exposure Estimates | | | | | |
|---|----------|-----------|--|--|--|
| ID Number: P-16-0400 | | | | | |
| Scenario: General Purpose Cleaner Population: Adult | | | | | |
| Exposure Duration (chronic) (years): 57 Exposure Duration (acute) (days): 1 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Exposure Units | Result | AT (days) | | | |
| Chronic Cancer | • | | | | |
| LADD _{pot} (mg/kg-day) 1.29e-02 2.85e+04 | | | | | |
| Acute | • | | | | |
| ADR _{pot} (mg/kg-day) | 2.15e-02 | 1 | | | |

LADD - Lifetime Average Daily Dose (mg/kg-day)

ADR - Acute Dose Rate (mg/kg-day)

| CEM Inputs | | ID Number: P-16-0400 | | |
|--|----------|---|-----------|--|
| Product: unknown | | Chemical Name: P-16-0400 | | |
| Scenario: Latex Paint | | Population: Adult | | |
| Molecular Weight (g/mole): | 156 | Vapor Pressure (torr) | 0.27 | |
| Consumer Product Weight Fraction - Central Tendency (unitless): | 0.7 | Consumer Product Weight Fraction - High- End (unitless): | | |
| Inhalation Inputs | | | | |
| Frequency of Use (chronic) (events/yr): | 4 | Exposure Duration (chronic) (years): | 11 | |
| Frequency of Use (acute) (events/day): | 1 | Exposure Duration (acute) (days): | 1 | |
| Mass of Product Used per Event - Central Tendency (g): | 3635 | Mass of Product Used per Event - High-End (g): | 1.272e+04 | |
| Inhalation Rate During Use (m³/hr): 0.74 | | Duration of Event - Central Tendency (hours/event): | 3 | |
| Inhalation Rate After Use (m³/hr): 0.611 | | Duration of Event - High-End (hours/event): | 8 | |
| Zone 1 Volume (m ³): | 36 | Whole House Volume (m ³): | 523 | |
| Air Exchange Rate (air exchanges/hr): | 0.45 | Body Weight (kg): | 80 | |
| Activity Patterns (Note: 1=Bedroom 5=Utility Room User: 1 1 1 1 1 1 1 2 3 1 1 1 1 | 6=Car 7 | EBathroom 4=Living Room =Out) | | |
| Non-User: 11111111324424 | 47742274 | 4 4 1 | | |
| Hour: 0 6 12 | 18 | | | |
| Start Time: 10 | | Room of Use: 1. Bedroom | | |
| Dermal Inputs | | | | |
| Frequency of Use (chronic) (events/yr): | 4 | SA/BW (cm2/kg): | 4.93 | |
| Frequency of Use (acute) (events/day): | 1 | | | |
| | | Exposure Duration (chronic) (years): | 11 | |
| Amount Retained / Absorbed to Skin (g/cm2-event): | 0.0114 | Exposure Duration (acute) (days): | 1 | |
| Averaging Time (chronic) (days): | 2.85e+04 | Averaging Time (acute) (days): | 1 | |

| | CEM Inhalation Exposure Estimates | | | | | | |
|---------------------------------------|--|-------------------|-------------------------------|------------------------------------|--|--|--|
| ID Number: P | -16-0400 | | | | | | |
| Scenario: Late | x Paint | Population: Adult | | | | | |
| Exposure Duration (years) chronic: 11 | | Exposure Durat | tion (days) acute: | 1 | | | |
| | | | | | | | |
| | | | | | | | |
| | Exposure Units | Result | AT (days) | | | | |
| | Chronic Cancer | | | | | | |
| | LADD _{pot} (mg/kg-day) | 8.09e-03 | 2.85e+04 | | | | |
| | LADC _{pot} (mg/m ³) | 4.32e-02 | 2.85e+04 | | | | |
| | Acute | | | | | | |
| | ADR _{pot} (mg/kg-day) | 1.31e+01 | 1 | | | | |
| | Cp _{pot} (mg/m ³) | 1.61e+02 | NA | | | | |
| | ļ . | | • | <u> </u> | | | |
| LADD - Lifeti | ime Average Daily Dose (mg/kg-day) | LADC - Lifetin | ne Average Daily | Concentration (mg/m ³) | | | |
| ADR - Acute | Dose Rate (mg/kg-day) | Cp - Peak Conc | centration (mg/m ³ |) | | | |

Note: 78 years = 2.85e+04 days pot - potential dose

Note: The general Agency guidance for assessing short-term, infrequent events (for most chemicals, an exposure of less than 24 hours that occurs no more frequently than monthly) is to treat such events as independent, acute exposures rather than as chronic exposure. (Methods for Exposure-Response Analysis for Acute Inhalation Exposure to Chemicals (External Review Draft). EPA/600/R-98/051. April 1998)

| CEM Derr | nal Exposure Estimate | es |
|---|-----------------------|--------------------|
| ID Number: P-16-0400 | | |
| Scenario: Latex Paint | Population: Adult | |
| Exposure Duration (chronic) (years): 11 | | |
| | | |
| | | <u> </u> |
| | | |
| | | |
| Exposure Units | Result | AT (days) |
| Exposure Units Chronic Cancer | Result | AT (days) |
| | Result 6.08e-02 | AT (days) 2.85e+04 |
| Chronic Cancer | | |

ADR - Acute Dose Rate (mg/kg-day)

| CEM Inputs | | ID Number: P-16-0400 | | |
|--|----------|---|-------|--|
| Product: unknown | | Chemical Name: P-16-0400 | | |
| Scenario: Laundry Detergent | | Population: Adult | | |
| Molecular Weight (g/mole): | 156 | Vapor Pressure (torr) | 0.27 | |
| Consumer Product Weight Fraction - Central Tendency (unitless): | 0.05 | Consumer Product Weight Fraction - High- End (unitless): | | |
| Inhalation Inputs | | | | |
| Frequency of Use (chronic) (events/yr): | 312 | Exposure Duration (chronic) (years): | 57 | |
| Frequency of Use (acute) (events/day): | 1 | Exposure Duration (acute) (days): | 1 | |
| Mass of Product Used per Event - Central Tendency (g): | 200 | Mass of Product Used per Event - High-End (g): | 400 | |
| Inhalation Rate During Use (m³/hr): | 0.74 | Duration of Event - Central Tendency (hours/event): | 0.333 | |
| Inhalation Rate After Use (m ³ /hr): | 0.611 | Duration of Event - High-End (hours/event): | 0.667 | |
| Zone 1 Volume (m ³): | 36 | Whole House Volume (m ³): | 523 | |
| Air Exchange Rate (air exchanges/hr): | 0.45 | Body Weight (kg): | 80 | |
| Activity Patterns (Note: 1=Bedroom 2 5=Utility Room User: 1 1 1 1 1 1 2 3 5 5 4 2 4 | 6=Car 7 | EBathroom 4=Living Room =Out) | | |
| Non-User: 11111112333422 | | | | |
| Hour: 0 6 12 | | | | |
| Start Time: 9 | | Room of Use: 5. Utility Room | | |
| Dermal Inputs | | | | |
| Frequency of Use (chronic) (events/yr): | 52 | SA/BW (cm2/kg): | 12.3 | |
| Frequency of Use (acute) (events/day): | 1 | | | |
| | | Exposure Duration (chronic) (years): | 57 | |
| Amount Retained / Absorbed to Skin (g/cm2-event): | 1.11e-05 | Exposure Duration (acute) (days): | 1 | |
| Averaging Time (chronic) (days): | 2.85e+04 | Averaging Time (acute) (days): | 1 | |

| | CEM Inhalation | n Exposure Estim | nates | |
|-----------------|--|------------------|---------------------------------|------------------------------------|
| ID Number: P-1 | 6-0400 | | | |
| Scenario: Laund | ry Detergent (Machine Washing) | Population: Ad | ult | |
| Exposure Durati | on (years) chronic: 57 | Exposure Durat | tion (days) acute: 1 | |
| | | | | |
| | | | | |
| | Exposure Units | Result | AT (days) | |
| | Chronic Cancer | | | |
| | LADD _{pot} (mg/kg-day) | 4.74e-02 | 2.85e+04 | |
| | LADC _{pot} (mg/m ³) | 2.24e-01 | 2.85e+04 | |
| | Acute | | | |
| | ADR _{pot} (mg/kg-day) | 3.00e-01 | 1 | |
| | Cp _{pot} (mg/m ³) | 3.55e+01 | NA | |
| | | | | 2 |
| LADD - Lifetim | e Average Daily Dose (mg/kg-day) | LADC - Lifetin | ne Average Daily C | Concentration (mg/m ³) |
| ADR - Acute Do | ose Rate (mg/kg-day) | Cp - Peak Conc | centration (mg/m ³) | |

Note: 78 years = 2.85e+04 days pot - potential dose

Note: The general Agency guidance for assessing short-term, infrequent events (for most chemicals, an exposure of less than 24 hours that occurs no more frequently than monthly) is to treat such events as independent, acute exposures rather than as chronic exposure. (Methods for Exposure-Response Analysis for Acute Inhalation Exposure to Chemicals (External Review Draft). EPA/600/R-98/051. April 1998)

| CEM Derr | CEM Dermal Exposure Estimates | | | | | |
|---|-------------------------------|-----------|--|--|--|--|
| ID Number: P-16-0400 | | | | | | |
| Scenario: Laundry Detergent (Hand Washing) | Population: Adult | | | | | |
| Exposure Duration (chronic) (years): 57 Exposure Duration (acute) (days): 1 | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Exposure Units | Result | AT (days) | | | | |
| Chronic Cancer | | | | | | |
| LADD _{pot} (mg/kg-day) | 7.11e-04 | 2.85e+04 | | | | |
| Acute | | | | | | |
| ADR _{pot} (mg/kg-day) 6.83e-03 1 | | | | | | |
| | • | | | | | |
| LADD - Lifetime Average Daily D | ose (mg/kg-day) | | | | | |
| ADR - Acute Dose Rate (mg/kg-da | ıy) | | | | | |